

CLAIMS

1. A weighing device, comprising:

a weighing unit for weighing a container containing a target object while moving
5 the container;

a stock unit for accumulating a plurality of containers while moving the
containers transported thereto from the weighing unit;

a discharge unit for discharging the target object from a container selectively
retrieved from the stock unit while moving the container; and

10 a moving mechanism for moving the container in the weighing unit, the stock
unit, and the discharge unit.

2. A weighing device according to claim 1, further comprising a transfer unit for
transferring the container between at least the weighing unit, the stock unit, and the
15 discharge unit.

3. A weighing device according to claim 2, further comprising a moving direction
change unit for changing a moving direction of the container in the vicinity of the
transfer unit.

20 4. A weighing device according to any one of claims 1 to 3, wherein the weighing
unit moves together with the container.

5. A weighing device according to claim 4, wherein the weighing unit is in a
25 stationary state relative to the container when weighing the container.

6. A weighing device according to any one of claims 1 to 5, comprising a
plurality of weighing units.

7. A weighing device according to any one of claims 1 to 6, wherein the stock unit is located immediately upstream of the discharge unit.

5 8. A weighing device according to any one of claims 1 to 7, wherein the weighing unit, the stock unit, and the discharge unit move the container two-dimensionally.

 9. A weighing device according to any one of claims 1 to 8, wherein at least one of the weighing unit, the stock unit, and the discharge unit moves the container
10 three-dimensionally.

 10. A weighing device according to any one of claims 1 to 9, wherein the weighing unit, the stock unit, and the discharge unit move a plurality of the containers continuously.

15 11. A weighing device according to any one of claims 1 to 10, wherein the moving mechanism rotates the weighing unit, the stock unit, and the discharge unit; and the rotating weighing unit, stock unit, and discharge unit move the container.

20 12. A weighing device according to any one of claims 1 to 11, wherein the weighing unit, the stock unit, and the discharge unit each comprise a holding unit for holding the container.

 13. A weighing device according to claim 12, wherein a transfer unit for
25 transferring the container is provided in at least one position between the weighing unit, the stock unit, and the discharge unit; and

 a holding release member for releasing the container held by the holding unit is located in the vicinity of the transfer unit.

14. A weighing device according to any one of claims 1 to 13, further comprising a supply unit for supplying a target object to the moving container.

5 15. A weighing device according to any one of claims 1 to 14, wherein the container is in constant movement after being supplied with the target object in the supply unit until the target object is discharged therefrom in the discharge unit and returned to the weighing unit.

10 16. A combination weighing device comprising one or a plurality of weighing devices according to any one of claims 1 to 15.

17. A weighing method for weighing a target object contained in a container, the method comprising:

15 a first step of weighing the container containing the target object while moving the container;

 a second step of accumulating a plurality of containers which have been weighed while moving the plurality of containers; and

 a third step of selectively retrieving a desired container from the plurality of
20 accumulated containers and discharging the target object from the container while moving the container.

18. A weighing device according to any one of claims 1 to 15, wherein the stock unit circulates the plurality of containers received from the weighing unit.

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19. A weighing device according to any one of claims 1 to 15, wherein a new container is added from the weighing unit to the stock unit at a position in which the container transferred to the discharge unit had been held.